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PATENT**IN THE SPECIFICATION**

Please replace the paragraph on page 7, beginning at line 15, with the following amended paragraph:

The final quality of the quadrilateral mesh inside the loop is limited by the resolution of the original mesh on the base surface and by the number of mesh faces that are diagonally intersected [.]by the loop. Unfortunately, this smoothing procedure can result in the poorest quality mesh faces at the loop boundary.

Please replace the paragraph on page 8, beginning at line 7, with the following amended paragraph:

The refinement scheme can be understood by inspection of the Spatial Twist Continuum (STC), or dual of the mesh. *See, e.g., Murdock and Benzley, "The Spatial Twist Continuum", Proceedings, 4<sup>th</sup> International Meshing Roundtable 95, pp. 243-251 (October 1995).* A complete STC sheet can be inserted directly inside the bounding loops of the graft surface. The sheet passes behind the first layer of hexes in the trunk creating a pillow of new hexes inside the loop. *See, e.g., Mitchell and Tautges, "Pillowing Doublets: Refining a mesh to ensure that faces share at most one edge" [on the web at [endo.sandia.gov/~samitch/pillowing-doublets.pdf](http://endo.sandia.gov/~samitch/pillowing-doublets.pdf)], incorporated herein by reference.* Thus, the connectivity of the interior side of the hexes can remain unchanged. This can insure that the connectivity modification is local, especially on thin solids.